

WOS

ABSTRACT
SUMMARY

The object of the present invention is to provide a cutting tool consisting of fine grain cBN free from a binder and having a grain size of at most 1 μm and having a high hardness, high strength and excellent heat resistance. The feature thereof consists in a cutting tool comprising, as an edge part, a cubic boron nitride sintered compact containing cubic boron nitride having an average grain diameter of at most 1 μm , in which the cubic boron nitride sintered compact has, at the said edge part, an $I_{(220)} / I_{(111)}$ of (220) diffraction intensity ($I_{(220)}$) to (111) diffraction intensity ($I_{(111)}$) ratio of at least 0.05 in X-ray diffraction of arbitrary direction and impurities are substantially not contained in the grain boundaries.

09-1237-041-600

SD-9901